ENERGY POLICY UPDATE

APRIL 21, 2014

The Energy Policy Update Electronic Newsletter is published by the Arizona Governor's Office Of Energy Policy and is provided free of charge to the public. It contains verbatim excerpts from international, domestic energy, and environment-related publications that are reviewed by Community Outreach Personnel. For inquiries, call 602-771-1143 or toll free to 800-352-5499. To register to receive this newsletter electronically or to unsubscribe, email Gloria Castro.

UPCOMING WEBINARS

Climate Change Impacts & Indian Country: Natural Resources & Agriculture
Thursday, April 24,10:00 a.m. - 12:00 p.m. MST
Click here to register.
Webinar Sponsors: White House Office of Public Engagement, White House Council on Environmental Quality, and DOE's Office of Indian Energy

Climate Change Impacts & Indian Country: Human Health & Community
Thursday, May 1, 10:00 a.m. - 12:00 p.m. MST.
Click here to register.
Webinar Sponsors: White House Office of Public Engagement, White House Council on Environmental Quality, and DOE's Office of Indian Energy

Behavior-Based Energy Efficiency
Thursday, May 8, 1:00 p.m. – 2:15 p.m. MST
This webinar is being hosted jointly by SEE Action & ACEEE. Advanced registration is required. Space is limited.

The 2014 Farm Bill's Renewable Energy for America Program

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The Arizona Republic now has limited access. As such, links may or may not work.

ARIZONA-RELATED

BLM, WAPA Release Southline Transmission Draft EIS
[Energy Prospects West, Apr. 15] The U.S. Bureau of Land Management and the Western Area Power Administration are now soliciting comments on the draft environmental impact statement for the proposed Southline Transmission Project. The Southline Project proposes to build a 360-mile line from Las Cruces, N.M., to Tucson, Ariz., across federal, state, and private land. Hunt Power, the parent company of Southline Transmission LLC, claims the line will improve reliability and help facilitate the development and delivery of renewable energy in the region. One segment of the project will consist of a double-circuit 345-kV line that would link an existing substation at Afton, near Las Cruces, to the existing Apache substation near Willcox, Ariz., and a second segment would upgrade 120 miles of existing transmission lines from 115 kV to 230 kV between the Apache substation and the Saguaro substation near Tucson.

Gov. Brewer Says Arizona's Bid for Tesla Battery Plant Is Competitive
[Arizona Republic, Apr. 16] Jan Brewer said Arizona submitted a highly competitive package to Tesla Motors Inc. in hopes the company opens its proposed battery factory here, and that she believes at least one of the states Tesla was considering is out of the running. Palo Alto, Calif.,-based Tesla said in February that Arizona was among four states in contention for a $4 billion or more factory that could employ 6,500. Also competing are Nevada, New Mexico and Texas. The factory could supply as many as 500,000 batteries a year by 2020, shipping them to California to be assembled into Tesla's electric vehicles. "With this project, we are right in the ballgame," Brewer said Tuesday following a meeting of Arizona Commerce Authority executives. The agency coordinates the state's efforts to land business prospects like the factory.

Innovation Center Is Already Creating Jobs
[Arizona Republic, Apr. 14] The 1-year-old Center for Entrepreneurial Innovation strives for job growth in Phoenix by providing help to startups in the biosciences, renewable energy, technology services and software industries. Opened on March 7, 2013, CEI's goal is to create 400 jobs in 20 years as mandated by the U.S. Economic Development Administration, which gave Phoenix a $2.5 million grant to build the incubator. "We are in the process of capturing our exact job creation numbers, but, to date, our client companies have created between 70 to 90 jobs at an average salary of $65,000 per year," said Greg Bullock, the center's marketing and public relations representative. "We are tracking toward our EDA-mandated goal of 400 jobs in 20 years with the likelihood that we will accomplish that objective in half that time, if not sooner." CEI, located on the GateWay Community College campus, houses 14 residential companies and assists six off-site

Wednesday, May 21, 3:00 p.m. - 4:00 p.m. Eastern Daylight Time. Learn how to join the webinar.
Webinar Sponsor: Wind Program Stakeholder Engagement & Outreach Initiative

- ENERGY STAR Webinars
- U.S. Dept. of Energy Tribal Renewable Energy Webinar Series for 2014

affiliate companies. Of those 20, eight are technology services and software companies, nine are bioscience companies and three are renewable-energy companies.

Largest Solar Array on a U.S. Military Installation to Be Developed
[US Army News Release, Apr. 14] WASHINGTON, D.C. – The U.S. Army announced today plans to start development of a solar array that will provide about 25 percent of the annual installation electricity requirement of Fort Huachuca, Ariz. "This will be the largest solar array in the department of defense on a military installation," according to the Honorable Katherine Hammack, assistant secretary of the Army for installations, energy and environment. A ground breaking is scheduled for April 25 with commercial operations commencing in late 2014. "Energy is an installation priority," said Fort Huachuca's commanding general, Major Gen. Robert Ashley. "The project goes beyond the megawatts produced. It reflects our continued commitment to southern Arizona and energy security. The project will provide reliable access to electricity for daily operations and missions moving forward." The Fort Huachuca Renewable Energy Project is a joint effort between the U.S. Army Energy Initiatives Task Force, Fort Huachuca, The General Services Administration, Tucson Electric Power and developer E.ON Climate and Renewables.

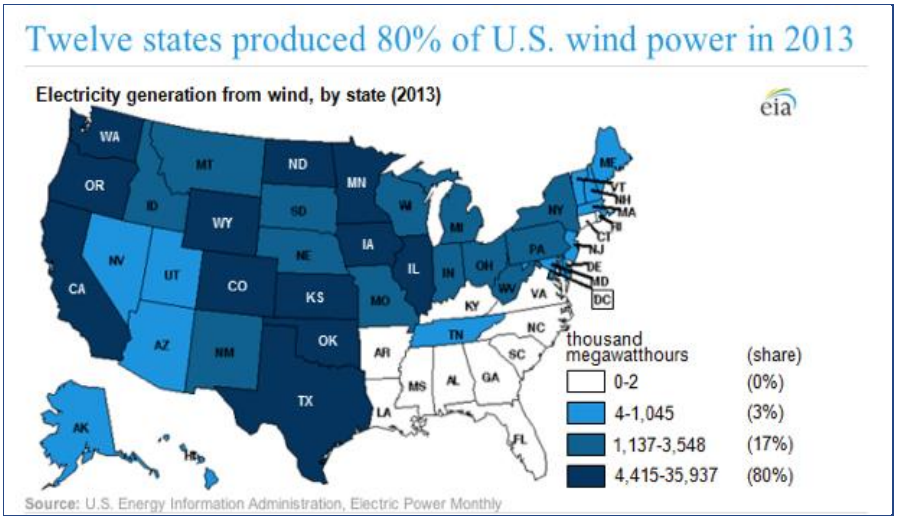
Phoenix to Weigh Water Options in Face of Global Warming
[Arizona Republic, Apr. 20] Phoenix is well-supplied with water, provided the state's ongoing drought doesn't worsen, the city's water department says. But even so, the agency says it's time to consider how to cope with climate change. Water Services Department officials will ask the City Council at its Tuesday policy meeting to consider several recommendations in case a catastrophic drought does occur. The department projects that the nation's sixth-largest city should have enough water to last another century — provided temperatures don't spike upward. "What we want to do is be proactive in the future so we are sure we have enough water under any climate conditions," Kathryn Sorensen, the city's Water Services director, said Friday. The city provides water to 414,188 customers and wastewater services to 397,627. Arizona experienced low rainfall and low snow levels in the mountains this year. The state has done a good job of developing water reservoirs for dry years, experts say, but global warming, coupled with California's severe drought conditions, is of concern. Water is in such shortage in California that it's being rationed, with farmers leaving land fallow.

SPG Solar Deploys SunSeeker Tracker for 50 MW System in Arizona
[Solar Industry, Apr. 15] SPG Solar says it has completed the delivery of its SunSeeker single-axis tracker to a 50 MW DC solar PV system in Gila Bend, Ariz. Constructed by engineering, procurement and construction company Black & Veatch, it will be one of Arizona's largest solar power installations, says SPG Solar. The company says the project spans over 250 acres and will produce more kWh with the SunSeeker tracker, a technology that automatically moves the panels east to west for maximum sunlight exposure. The installation is expected to be commissioned this spring.

Water-Pledge Contest Latest Mesa Conservation Effort
The monthlong Mayor's Challenge for Water Conservation pits U.S. cities against one another, ultimately declaring one city in each population category the most "water-wise" and awarding individual prizes, including a Prius Plug-In, along the way.
[Arizona Republic, Apr. 11] Desperate drought conditions call for desperate measures. As Gov. Jan Brewer was pleading for the state's help in the face of a grim wildfire outlook earlier this month, Mesa was kicking off participation in a national effort that offers a Prius hybrid and other rewards in exchange for water-conservation pledges. The monthlong Mayor's Challenge for Water Conservation, backed by the sustainability-conscious Wyland Foundation, is a "non-profit national community-services campaign to see which leaders can best inspire their residents to make ... pledges to reduce water and energy usage." The challenge pits U.S. cities against one another, ultimately declaring one city in each population category the most "water-wise" and awarding individual prizes, including a Prius Plug-In, along the way.

ALTERNATIVE ENERGY & EFFICIENCY

12 States Produced 80% of US Wind Power in 2013
[Energy Manager Today, Apr. 16] In 2013, 12 states accounted for 80 percent of US wind-generated electricity, according to preliminary generation data from the US Energy Information Administration. Texas was again the top wind power state with nearly 36 million MWh. Iowa was second, with more than 15 million MWh, followed by California, Oklahoma, Illinois, Kansas, Minnesota, Oregon, Colorado, Washington, North Dakota and Wyoming.



These 12 states produced a combined 134 million MWh of electricity from wind. Nationwide, 167 million MWh of power came from wind in 2013, a 19 percent increase from 2012. Wind power increased its share of US total electricity generation in 2013 from 3.5 percent to 4.1 percent. All but 13 states reported to EIA some generation from wind, and 23 states increased their wind generation more than 10 percent above 2012 production levels. California's wind generation exceeded geothermal generation for the first time in 2013. The proportion of wind to total electricity generated varied widely by state. Leading the nation in wind generation share was Iowa with 27.4 percent of net electricity production coming from wind turbines. Second was South Dakota, at 26 percent. Other states with more than twice the national share of 4.1 percent wind power were Kansas, Idaho, Minnesota, North Dakota, Oklahoma, Colorado, Oregon, Wyoming, and Texas.

$15 Million to Help Communities Boost Solar Deployment

[Sustainable City Network, Apr. 20] WASHINGTON, D.C. – In support of the Administration's goal of doubling renewable energy generation for a second time by 2020, the Energy Department announced $15 million to help communities develop multi-year solar plans to install affordable solar electricity for homes and businesses. The United States continues to be a global leader in solar, with total U.S. solar energy installations reaching 13 GW last year. As the cost of solar energy continues to decline, more states and local communities are deploying solar energy projects to meet their electricity needs. "As part of the President's all-of-the-above energy strategy, solar energy is helping families and businesses throughout the U.S. access affordable, clean renewable power," said Energy Secretary Ernest Moniz. "The Energy Department is committed to further driving down the cost of solar energy and supporting innovative community-based programs, creating more jobs, reducing carbon pollution and boosting economic growth." As part of the Department's SunShot Initiative, the Solar Market Pathways funding opportunity aims to help communities develop solar deployment plans that focus on cutting red tape, building strong public-private partnerships to deploy commercial-scale solar. As part of these solar deployment plans, communities will establish innovative financing mechanisms and launch creative community-based initiatives, such as shared solar programs. Shared solar programs give families and businesses the opportunity to own, lease, or purchase electricity from a share of a larger solar project, reducing overall costs and giving more consumers access to renewable power.

Consumer Support for Renewable Energy Widespread

[Fierce Energy, Apr. 21] Products and services such as solar PV, utility-scale renewables and hybrid electric vehicles have all experienced double-digit compound annual growth rates over the past decade, accounting for significant adoption of clean energy technologies across broad demographic groups. New nationwide research commissioned by SolarCity and Clean Edge explains what is behind this expansion. Performed by polling firm Zogby Analytics, the research focused on U.S. homeowners and their choices surrounding a range of clean energy topics -- including renewables, energy efficiency, clean transportation, and energy storage. In addition, the survey revealed some interesting things about what homeowners know and think about electric utilities, third-party energy service providers, and consumer choice. The research revealed that a majority of homeowners -- 88 percent -- support renewable energy, and conclude that it is important to America's future, realizing the environmental impact of their energy purchases. In fact, 70 percent of all the homeowners surveyed evaluate the environmental impact/sustainability of big-ticket items when making purchasing decisions. More than half of homeowners said they were

more likely to think about that today than just three years ago.

Small Box Retail: Think Outside the Energy Box

[Energy Manager Today, Apr.16] Energy Management Systems (EMS's) are ubiquitous in the big box retail environment, and even in medium box stores, but have been less so in small box retail (defined for our purposes as facilities under 10,000 sq. ft.), although that appears to be changing. What has been unique about the small box world, and why are we seeing it change? First, let's examine some of the reasons that small box and specialty retailers have been slower to adopt energy management systems. For one, these smaller footprint stores spend a lot less on energy than their larger box cousins, so the magnitude of potential savings is smaller. Second, many small box retail stores are located in malls or strip malls where HVAC and other systems are owned and controlled by the property owners, not by the retailers – and energy billing may be based solely on square footage, rather than actual usage. Third, it is just a small box, isn't it? Not much complexity in a small box, therefore not much savings to be had. Right? Combine all of this with the fact that, initially at least, the EMS being offered to small box retailers was a slightly scaled down version of the same expensive and complex system sold to the large box world. With low energy expenditures and high EMS costs, it is no wonder that the return on investment was often not there for small box retailers. But, in the past few years, several technology developments have changed the nature of an EMS in a way that has created more cost-effective options for smaller facilities – creating what we have been calling EMS 2.0. Internet connected thermostats and cloud-based software have changed the face of HVAC control. Low cost sensors and wireless communications have significantly decreased deployment costs. The introduction of big data analytics and equipment performance diagnostics has created a range of new value opportunities for an EMS to deliver. And, enterprise level data and functionality provides visibility and value that did not exist before. So, how can EMS 2.0 deliver savings for a small box retail chain?

Study: Fuels from Corn Waste Not Better Than Gas

[Associated Press, Apr. 20] WASHINGTON — Biofuels made from the leftovers of harvested corn plants are worse than gasoline for global warming in the short term, a study shows, challenging the Obama administration's conclusions that they are a much cleaner oil alternative and will help combat climate change. $500,000 study paid for by the federal government and released Sunday in the peer-reviewed journal Nature Climate Change concludes that biofuels made with corn residue release 7 percent more greenhouse gases in the early years compared with conventional gasoline. While biofuels are better in the long run, the study says they won't meet a standard set in a 2007 energy law to qualify as renewable fuel. The conclusions deal a blow to what are known as cellulosic biofuels, which have received more than a billion dollars in federal support but have struggled to meet volume targets mandated by law. About half of the initial market in cellulosics is expected to be derived from corn residue.

Too Many Biogas Plants to Count, Growing Fast in US

[SustainableBusiness.com News, Apr. 11] If you follow our news you know we're big boosters of biogas - a renewable form of natural gas made from methane waste from wastewater treatment plants, dairies and landfills. The American Biogas Council selected a New Jersey wastewater treatment plant for its "Biogas Project of the Year" award. With a goal of running the plant entirely on renewable energy, the Ridgewood, New Jersey plant combines biogas production, combined heat and power (CHP) and 50 kilowatts of solar. After retrofitting the plant to optimize biogas production, they added enzymes and food waste like brown grease, as well as excess heat captured from the biogas engine, to enhance the process and to eliminate flaring of methane into the atmosphere. Solar arrays at four locations across town supply electricity. As a result the plant runs completely on renewable energy and even earns money through the sale of the Renewable Energy Certificates (RECs) it generates.

ENERGY/GENERAL

30 Countries Pledge $4 Billion to Restore World's Environment

[SustainableBusiness.com News, Apr. 18] 30 countries pledged donations totaling $4.43 billion to the Global Environment Facility (GEF), which will be used over the next four years to help developing countries preserve the environment. In more than 140 countries, projects will tackle a broad range of threats: climate change, deforestation, land degradation, extinction of species, toxic chemicals and waste, and threats to oceans and freshwater resources. The last round of GEF funding in 2010, raised $4.25 billion. This time, funds will also be used to support the international treaty signed last year to control mercury emissions, the Minamata Convention. Also new is an "Integrated Approaches Pilot," which aims at addressing environmental degradation by focusing on their underlying drivers, such as food security in Africa, sustainable city development,

and removing illegally logged wood from global supply chains. These issues can only be addressed if broad coalitions of stakeholders across countries and sectors come together around a common action agenda.

Desalination Plant to Provide Third of Beijing's Water

[Bloomberg, Apr. 15] One-third of the tap water used in Beijing in five years will be desalinated from the sea to make it potable and boost clean supplies, according to state media. Beijing Enterprises (371) Water Group, the biggest publicly traded water-treatment company in China, is developing the reverse-osmosis project in the Caofeidian district of Tangshan in Hebei province, the Global Times reported. The city will get about 33 percent of its water daily from the treatment facility. The company said it's planning to spend 7 billion yuan($1.1 billion) on the plant and 10 billion yuan more on a pipeline to transport the water. Beijing Enterprises Water started desalinating seawater in 2012. Beijing has been battling drought for 15 years as China works to clean its water and air of pollutants. Xinhua News Agency reported April 12 that investigators traced the source of an oil pipeline leak that contaminated the water supply of 2.4 million people in Lanzhou to a unit run by China National Petroleum Corp., the latest health- and safety-related mishap in the most-populous nation.

Natural Gas Leads 2013 Capacity Additions by Wide Margin

[Power Magazine, Apr. 22] The U.S. added 6,681 MW of net natural gas-fired capacity in 2013, far outstripping any other generation source, according to Energy Information Administration (EIA) data. This figure represented a substantial drop from 2012, when 9,210 MW of new gas capacity was added, but it still accounted for just over 50% of total additions last year. U.S. capacity additions in general plummeted from 2012, when 28,801 MW was added, to just over 13,500 MW in 2013. The drop was almost entirely accounted for by wind, which added 12,885 MW in 2012 but only 1,032 MW last year as the Production Tax Credit was allowed to expire. New capacity was not equally distributed across the country, however. California alone accounted for nearly two-thirds of the total, with six large combustion turbine or combined cycle plants opening last year, along with a number of other smaller projects. Only one other state—Florida—added more than a gigawatt of new gas capacity in 2013 (the 1,200-MW Cape Canaveral facility, a *POWER* Top Plant). Solar continued its strong growth in recent years, adding just under 3 GW nationwide, though again most of this—just over 2 GW—was also in California.

Water Shortages Threaten Global Coal Power

[Power Magazine, Apr. 17] Water stresses in developing countries threaten to derail a massive build-out of coal capacity, according to a new analysis from the World Resources Institute (WRI). The WRI estimates that about 1,400 GW of new coal capacity is being proposed worldwide, and of that, three-quarters of it are in China and India. Unfortunately, much of this capacity is planned for areas already under significant water stress. Most of China's coal resources, for example, are located in the northern regions of the country, and about 60% of the planned new capacity will be located there to reduce transportation costs. Unfortunately, this portion of China has only 5% of the nation's water resources, and power needs face steep competition from agricultural, industrial, and residential demands.

INDUSTRIES AND TECHNOLOGIES

Onsite Generation: Can Utilities Rethink Their Business Proposition?

[Forbes, Apr. 19] Can utilities adapt to emerging innovations that allow customers to "bypass" their services? Or, will power companies become the modern-day dinosaur? The trend is toward more independent customers who are able to generate their own electricity — all spearheaded by advancing technologies that are becoming cheaper and more effective. But just how all it all "ends" cannot yet be forecast. In its report, "The Economics of Grid Defection," the Rocky Mountain Institute says that the transformation to onsite generation is inevitable. Rooftop solar panels are the main catalyst: Falling prices and financing by third parties in combination with continued government supports are all promoting development. The missing component, it says, is a reliable and affordable battery technology, which can store the electrons and then release them later on. We looked at solar plus battery systems and already, the economics are getting better," says James Mandel, manager at the think tank and an author of its report, in an interview. "The optimal investment for these is in concert with the grid, which we believe will lead to cheaper central generation too." How can onsite generation, or distributed generation, work together with the existing electricity infrastructure? That's a huge debate now taking place across several states. Even those who "detach" would still use the common wires to receive utility-provided power when the sun is not shining or to sell any excess electricity back to the utility. Utilities, meantime, are trying to modernize and expand their infrastructures to conform to a 21st Century economy. They point out that they collectively spend $25 billion a year maintaining their networks and they say

that its upkeep is everyone's responsibility.

Pacific Northwest Smart Grid Demo Enters Senior Year

[Energy Prospects West, Apr. 15] The Pacific Northwest Smart Grid Demonstration Project is in its final full year, the project's 2013 annual report notes, with a focus on completing data collection by August 2014. The 16-page report, published late last month, includes information on 2013 activities and updates from 13 of the 18 partners in the five-year, $178-million project. A 2013 highlight was the May 31 opening of Portland General Electric's Salem Smart Power Center, an 8,000-square-foot facility that includes a 5-MW, lithium-ion battery system. In partnership with the U.S. DOE, the state of Oregon and others, PGE is using the $25-million center to test several smart grid technologies, including energy storage, dispatchable standby generation, remotely operated power line switches, demand response, renewable energy integration and transactive controls, the annual report said. The large-scale battery system, which is equipped with two-way inverters, works with standby generators at several nearby state of Oregon facilities to create a "high-reliability zone" intended to reduce service interruptions on PGE's system, the report said.

Remote Sensing Methodology for Mapping Ephemeral Streams to Facilitate Sustainable Solar Energy Development

[Argonne Nat'l. Lab, Mar. 31] DOE's Argonne National Laboratory (Argonne) has developed a new image-processing algorithm for mapping dry-land ephemeral stream channels — features with an important role in water cycling in desert environments. To facilitate speedy, sustainable utility-scale solar energy development, algorithm development was initiated with funding from DOE's SunShot Initiative. Anticipating increased utility-scale solar energy development over the next several decades, federal agencies and other organizations have identified a need to develop comprehensive long-term monitoring programs specific to solar energy development. Environmental groups indicate that they are less likely to oppose individual solar projects that include a firm commitment to long-term monitoring. Argonne's image-processing algorithm for remotely sensed data is intended to lower barriers to development by providing a means of monitoring changes in key surface hydrologic features in landscapes and facilitating timely responses to undesirable effects. Federal agencies like the U.S. Department of the Interior, Bureau of Land Management (BLM), are obligated to protect the full array of resources and values on managed lands. Increasingly, stakeholders request that the agencies develop rigorous, comprehensive long-term monitoring programs. The BLM has committed to such monitoring as part of its new Solar Energy Program. Argonne assists in the development of effective monitoring programs to protect land resources while preventing unnecessary or ineffective restrictions to utility-scale solar energy development.

The Cost of Limiting Climate Change Could Double without Carbon Capture Technology

The economics of combating climate change may depend on an underfunded technology. [MIT Tech Review, Apr. 18] When it comes to technology for averting climate change, renewable energy often gets the limelight. But a relatively neglected technology—capturing carbon dioxide from power plants—could have a far bigger impact on the economics of dealing with climate change, according to a U.N. report released earlier this week. The report is the third in a series of major reports from the Intergovernmental Panel on Climate Change, the first of which came out last fall. This one considers how to limit greenhouse gas emissions to avoid the most serious effects of climate change. The report analyzes the cost of taking steps to stabilize greenhouse gas levels in the atmosphere—switching from coal to solar power, for example, will increase electricity prices and create a drag on the economy. It found that in a best-case scenario, limiting greenhouse gas concentrations to levels low enough to keep global warming to an increase of less than two degrees Celsius would cut global economic consumption by 2.9 to 11.4 percent by 2100. That could amount to between $9 trillion and $80 trillion. The report found that if solar and wind power fall short of targets, it would increase the cost of limiting global warming, but only by a modest amount—about 6 percent. But costs could more than double if carbon capture and storage (CCS) technology isn't deployed. That's because solar power could be replaced with alternatives such as nuclear power, while CCS is harder to replace. It's the only technology that can reduce the emissions of existing power plants, some of which will stay in operation for decades. It also might be the best way to limit emissions from some industrial processes, such as making steel.

Electric Car Numbers Double in One Year

[ENN, Apr. 16] There are now more than 400,000 electric cars on the world's roads - twice as many as a year ago, and on current trends there will be a million by 2016. Leading the market are the USA, Japan and China - while Europe trails behind. The number of electrically powered automobiles worldwide climbed to just over 400,000 in early 2014. This figure was determined in an analysis conducted by the Centre for Solar Energy and Hydrogen Research Baden-

Württemberg (ZSW). The vehicle count doubled over the twelve months of last year, increasing by an impressive 200,000 units. The Ulm-based researchers found that demand is greatest in the USA, Japan and China, which are currently the globally leading markets. Germany is just seventh in the ranking, trailing France, the Netherlands and Norway.

LEGISLATION AND REGULATION

Clean Energy Victory Bonds Act of 2014 Re-Introduced in House

[SustainableBusiness.com News, Apr. 9] Through the purchase of Victory Bonds after WWII, 85 million Americans spent over $185 billion ($2 trillion in today's dollars) to fund our nation's infrastructure. Imagine doing the same for clean energy infrastructure through Clean Energy Victory Bonds. That's what Green America has long been promoting and legislation has been re-introduced in the House of Representatives - The Clean Energy Victory Bonds Act of 2014. For as little as $25, American would be able to buy US-government backed bonds - a new form of Treasury Bond - that directly supports US solar, wind and other renewable energy sources, advanced biofuels, electric vehicles, residential and commercial energy efficiency programs.

DOE's Roadmap to Energy Security, Prosperity

[Fierce Energy, Apr. 16] The U.S. Department of Energy (DOE) has released a comprehensive blueprint to guide the agency's core mission of ensuring America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. The 2014 Strategic Plan provides a roadmap for achieving these goals. "Following this roadmap, the Department will continue building a cleaner energy environment, strengthening our economy, creating jobs, and fostering innovation in the process," said Energy Secretary Ernest Moniz in a statement. "The priorities outlined in this plan are critical to advancing the nation's energy security and providing for a more secure and prosperous country for future generations." The plan is organized into 12 strategic objectives aimed at three distinct goals -- science and energy, nuclear security, and management and performance -- representing the broad cross-cutting and collaborative efforts across the DOE.

Europe Passes Historic Law: Big Corporations Must Report on Sustainability

[SustainableBusiness.com News, Apr. 15] This is a historic day in Europe, where a new law will require its biggest companies to include sustainability factors as part of their annual financial report. In a 599-55 vote, the European Parliament passed the law, which applies to publicly-traded with more than 500 employees. They must address "policies, risks and results" in relation to "social, environmental and human rights impact, diversity and anti-corruption policies" in their annual report. Today, 2500 companies voluntarily produce sustainability reports; now that will rise to nearly 7000 by 2017, when the law goes into effect.

Tighter Lightbulb Standards Coming from Energy Dept.

[Bloomberg BNA , April 15] The Energy Department plans to strengthen its energy-efficiency standards for certain types of light bulbs by up to 12.9 percent over current levels. The proposed standards, announced in a notice published on its website April 11, could cost companies and consumers $100 million or more to develop and purchase higher-efficiency bulbs. But the department expects the energy savings, emissions reductions and other benefits of the standards to outweigh those costs. The proposal affects general service fluorescent lamps (GSFLs), which includes fluorescent tube lamps that are commonly found in office buildings, and incandescent reflector lamps (IRLs), commonly used in recessed and track lighting. Light bulb makers that could be impacted by the proposal include GE Lighting, Osram Sylvania Inc. and Philips Lighting Co. The Energy Department has the authority to set energy-efficiency standards for general service fluorescent lamps, incandescent reflector lamps and other types of commercial and industrial equipment and consumer products under the Energy Policy and Conservation Act of 1975, as amended.

US Energy Dept Plans $4 Bln In Loan Aid for Renewable Energy

[Reuters, Apr. 16] WASHINGTON – The U.S. Energy Department on Wednesday unveiled a plan for up to $4 billion in loan aid for renewable energy companies to help rejuvenate a program that faced harsh political attacks over past failures of federally subsidized projects. The Obama administration's draft plan would provide loan guarantees for innovative projects that limit or avoid greenhouse gas emissions. It will specifically focus on advanced electric grid technology and storage, biofuels for conventional vehicles, energy from waste products and energy efficiency.

WESTERN POWER

California Energy Storage Group Signs Up Eaton, Volkswagen, Hitachi, Others

[Electric Light & Power, Apr. 17] An initiative to accelerate the development of the energy storage sector in California has signed its first corporate members — from international giants to emerging startups. CalCharge announced the enrollment of Duracell, Hitachi, Volkswagen, LG, Eaton, Enovix, EnerVault, Farasis Energy, Halotechnics, Leyden Energy and Primus Power at the Department of Energy's (DOE) advanced manufacturing event in San Francisco today. "Energy storage is the key to unlocking a clean energy economy," said Jeff Anderson, CalCharge President. "CalCharge is positioned to make California the center of gravity for energy storage technology development in the U.S. and globally." What began as a joint effort of Lawrence Berkeley National Laboratory (Berkeley Lab), a DOE national laboratory, and CalCEF to explore ways to support the growth of the California energy storage cluster, quickly grew to include SLAC National Accelerator Laboratory, San Jose State University, the International Brotherhood of Electrical Workers and the National Electrical Contractor's Association as the other founding Partner Members. Working together, they developed CalCharge, an independent member-driven public-private partnership. CalCharge has streamlined access to the national labs for its members.

SolarCity Resumes Applications for California Batteries

[Bloomberg, Apr. 16] SolarCity Corp. (SCTY), the largest U.S. solar-power provider by market value, will resume applications to connect energy-storage systems in California after regulators said they're exempt from utility fees. Utilities are barred from imposing charges including connection fees of as much as $800, the California Public Utility Commission said in a proposed decision yesterday. The commission typically adopts these proposed decisions and a final ruling may come as early as May 15. SolarCity in March stopped applying to install and connect storage systems for hundreds of customers in the state because utilities were requiring a series of applications and fees that made the process onerous. Combining rooftop solar panels with batteries to retain the energy for later use makes people less dependent on local power companies, a potential threat to the utility monopoly.

Wind and Energy Storage A Winning Combination for ERCOT

[Fierce Energy, Apr. 16] The Texas Energy Storage Alliance (TESA) and the Energy Storage Association (ESA) are working together to assist in the Electric Reliability Council of Texas (ERCOT) stakeholder driven market redesign process. ESA is the organization under which proposed rules enabling the advancement of utility scale energy storage technologies will be ensured. As energy storage technologies are commercialized and the energy storage industry grows nationwide, this Texas-based effort will benefit greatly from the leadership by ESA.

ARIZONA STATE INCENTIVES/POLICIES

ARIZONA COMMERCE AUTHORITY (ACA)

INCENTIVES

Arizona has lowered taxes, streamlined regulations, and established a suite of incentives to support corporate growth and expansion. The Arizona Competitiveness Package, groundbreaking legislation adopted in 2011, makes it easier for existing Arizona companies to prosper and establishes Arizona as one of the most desirable places for expanding companies to do business. Give your company a competitive edge by utilizing Arizona's incentives.

- Job Training
- Quality Jobs
- Qualified Facility
- Computer Data Center Program
- Research & Development
- Foreign Trade Zone
- Military Reuse Zone
- Angel Investment
- Renewable Energy Tax Incentive
- Healthy Forest
- Sales Tax Exemption for Machinery and Equipment
- Lease Excise

- Additional Depreciation
- Work Opportunity
- Commercial/Industrial Solar
- SBIR/STTR
- Private Activity Bonds
- QECB's

(ACA) PROGRAMS

DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY (DSIRE)

- Arizona Incentives/Policies
- Federal Incentives/Policies
- Solar Policy News - DSIRE provides summaries of current solar policy developments and an archive of past solar policy developments. Current solar news appears below the news archive, which is searchable by several criteria.

GRANTS

The following solicitations are now available:
(Click on title to view solicitation)

- Clean Energy Manufacturing Innovation Institute for Composites Materials and Structures Close Date: April 22, 2014
- Microgrid Research, Development & System Design Response Due: April 28, 2014
- Integrated Enhanced Geothermal Systems (EGS) Research and Development Close Date: April 30, 2014
- Low Temperature Geothermal Mineral Recovery Program Close Date: May 2, 2014
- Commercial Building Technology Demonstrations Concept Paper Submission Deadline: March 31, 2014. Full Application Submission Deadline: May 19, 2014.
- Bioenergy Technologies Incubator Close Date: May 23, 2014
- Clean Energy Manufacturing Innovation Institute for Composite Materials & Structures Close Date: June 19, 2014
- Sunshot "Race to the Roof" Initiative Registration Due: October 31, 2014
- Energy, Power, and Adaptive Systems Close Date: November 3, 2014
- Energy for Sustainability Response Due: February 19, 2015
- Advanced Fossil Energy Projects - Solicitation Number: DE-SOL-0006303 Expiration Date: November 30, 2016
- NSF/DOE Partnership on Advanced Frontiers in Renewable Hydrogen Fuel Production Via Solar Water Splitting Technologies 2014-2016 Close Date: Dec. 11, 2014
- Energy Department Announces Next Phase of L Prize Competition to Create Innovative Energy-Saving Lighting Products – Notification of Intent to Submit Product minimum of 30 days, but no more than 45 days prior to product submission. Monetary prize goes to the first successful entrant with the earliest timestamp.
- Repowering Assistance Program – Ongoing
- Rural Business Enterprise Grants – Ongoing

- Rural Business Opportunity Grants – Ongoing
- Sustainable Agriculture Research and Education Grants – Ongoing
- Renewable Energy RFP's - Solicitations for Renewable Energy Generation, Renewable Energy Certificates, and Green Power – Various Deadlines
- U.S. Dept. of Agriculture - Rural Development Grant Assistance
- Green Refinance Plus - Ongoing

ENERGY-RELATED EVENTS

2014

- International Geothermal Energy Forum
  April 23-24, 2014 Washington, DC
- 32nd Annual Solar Potluck & Exhibition
  April 26, 2014 Catalina State Park
- 11th Annual Construction in Indian Country Nat'l., Conference
  April 28-30, 2014 Chandler, AZ
- VerdeXchange Arizona
  April 30-May 2, 2014 Phoenix, AZ
- ASU School of Sustainability Open House & Student Project Showcase
  May 1, 2014 ASU Wrigley Hall – Tempe, AZ
- Windpower 2014
  May 5-8, 2015 Las Vegas, NV
- Cybersecurity Summit
  May 7, 2014 Scottsdale, AZ
- AWEA Windpower 2014
  May 5-8, 2014 Las Vegas, NV
- AZ Water Association Annual Conference & Exhibition
  May 7-9, 2014 Glendale, Arizona.
- Beyond the Border: Arizona Trade Mission to Mexico City & Guadalajara
  May 12-16, 2014
- Sunshot Grand Challenge Summit 2014
  May 19-22, 2014 Anaheim, CA
- Dept. of Energy's 13th Annual Small Business Forum & Expo
  June 10-12, 2014 Tampa, FL
- Native American Economic Development & Energy Projects Conference
  June 16-17, 2014 Anaheim, CA
- AZBio Expo 2014
  June 19, 2014 Scottsdale, AZ
- 32nd Annual West Coast Energy Management Congress
  June 25-26, 2014 Seattle, WA
- Solar 2014: 43rd Annual Conference
  July 6-10, 2014 San Francisco, CA

- National Geothermal Summit
  August 5-6, 2014 Reno, NV
- 2014 ACEEE Summer Study on Energy Efficiency in Buildings
  August 17-22, 2014 Pacific Grove, CA
- EPI's 4th Annual Energy Policy Research Conference
  September 4-5, 2014 San Francisco, CA
- HTUF 2014 National Meeting - The Forum for Action in High-Efficiency Commercial Vehicles
  September 22-24, 2014 Argonne, National Lab Argonne, IL
- Geothermal Energy Expo
  September 28-October 1, 2014 Portland, OR
- Solar Power International
  Oct. 20-23, 2014 Las Vegas, NV
- GreenBuild International Conference & Expo
  October 22-24, 2014 New Orleans, LA
- Governor's Celebration of Innovation
  November 13, 2014
- ASU Sustainability Series Events
- Green Building Lecture Series
  Granite Reef Senior Center Scottsdale, AZ